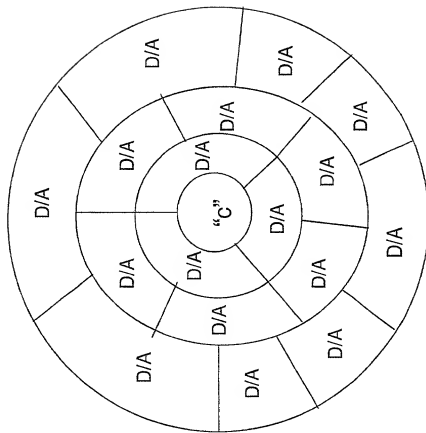


FIG. 1



10E201*12H0001

FIG. 2

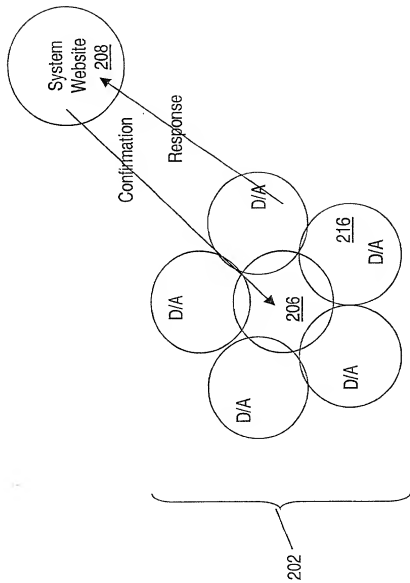


FIG. 3

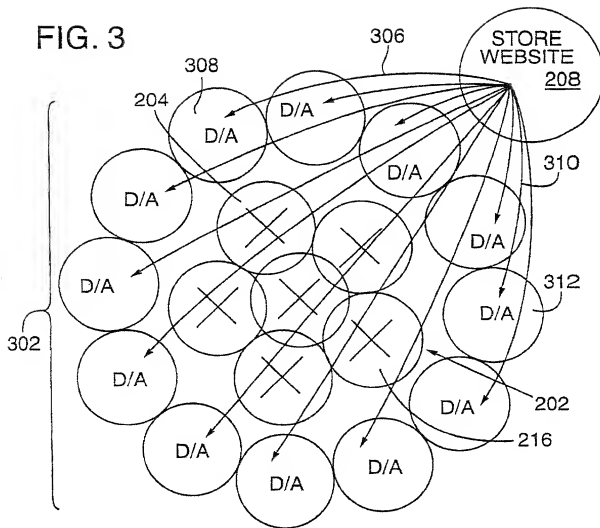


FIG. 4

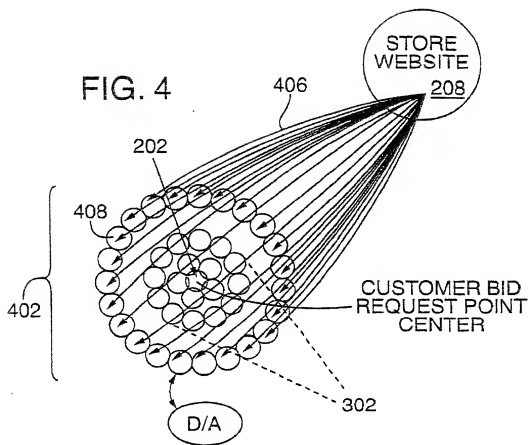


FIG. 5

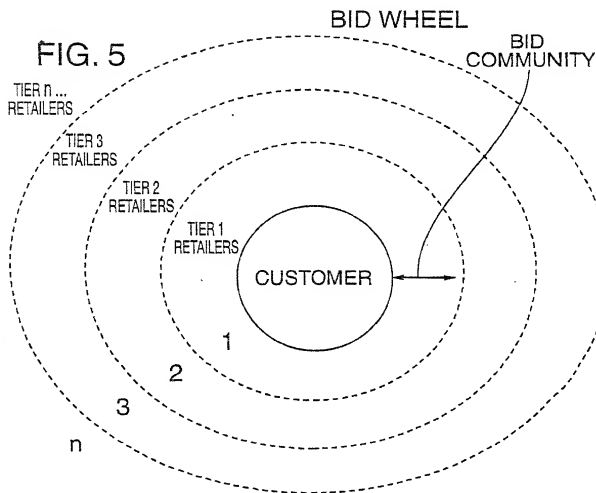
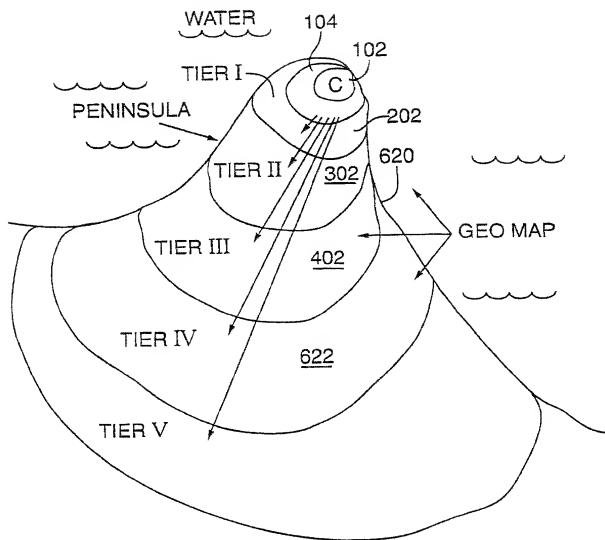
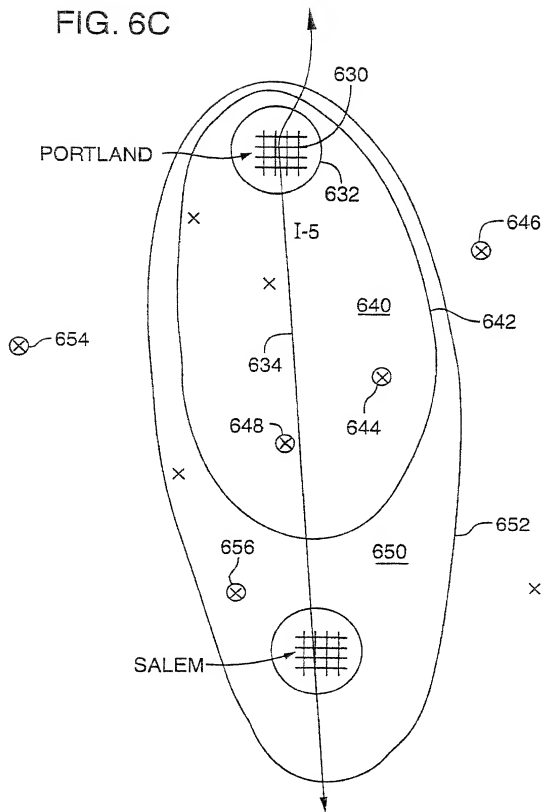


FIG. 6B



10004421.102301

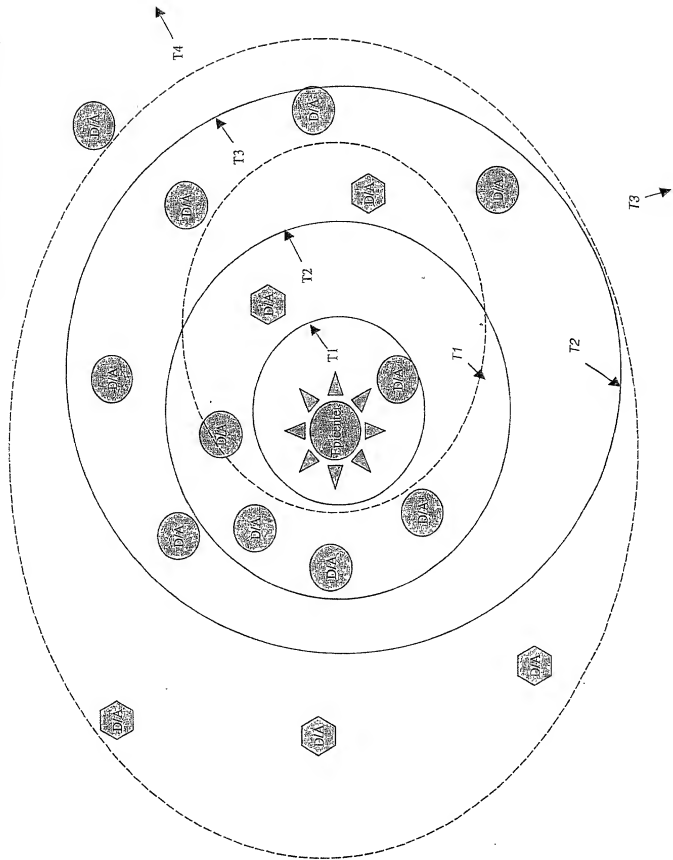
FIG. 6C

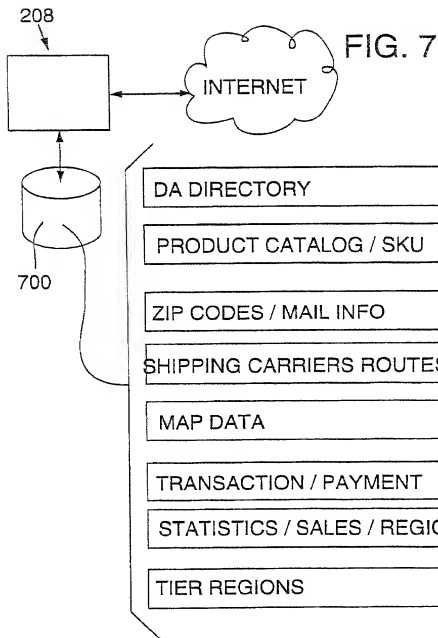


10004421.102301

10E201*12HH0001

FIG. 6D Business Density Tiering





10004421.102301

Figure 8 Method of E-Commerce Model

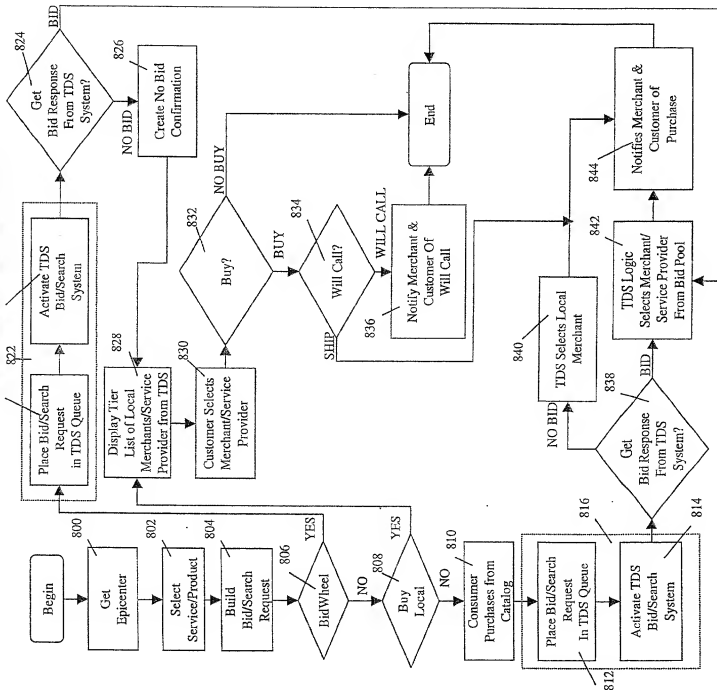
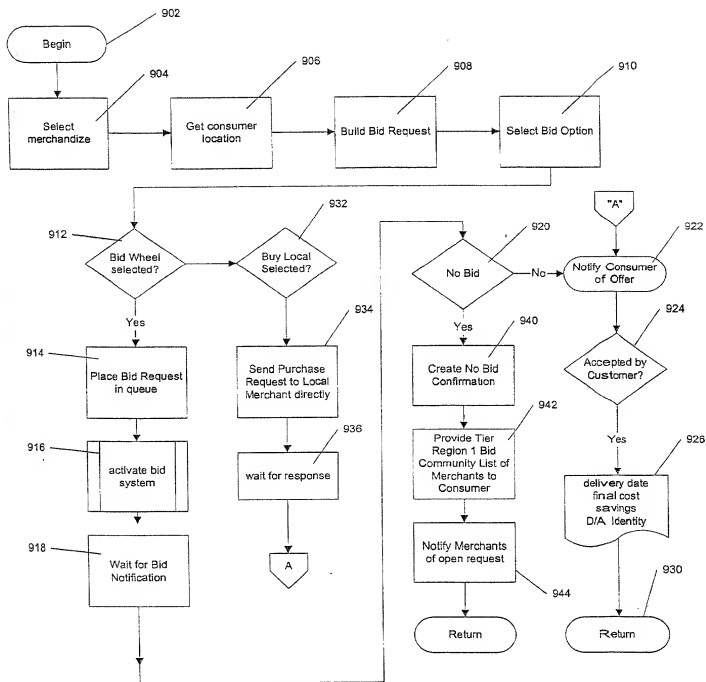
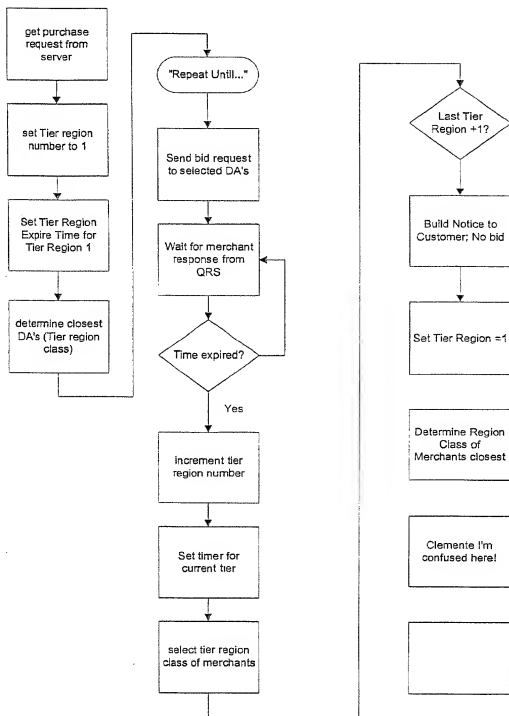


FIGURE 9



Bid Wheel (TDS) Logic

FIGURE 10



BID SYSTEM

10004421.102301

FIGURE 11A

TDS Logic Engine

WHILE (Forever) DO

 Begin

 Select Merchandise (Merchandise_Type) from Consumer

 Get Region_Id (Zip_Code) from Consumer

 Build Bid_Request (Merchandise_Type, Zip_Code)

 Select Bid_Option (Retail_Price, Bid_Wheel)

 IF Bid_Wheel Selected THEN

 Begin

 Place Bid_Request in SAA.com Bid_System Queue (Response_Time, Lowest_Bid)

 Activate Bid_System™

 Wait For Bid_Notification

 End

 ELSE

 Begin

 Send Bid_Request (Retail_Price) to Local Merchant Directly

 Wait For Bid_Notification

 End

 IF No Order Bid THEN

 Begin

 Create No Order Bid Confirmation

 Provide Tier Region 1 Bid Community List of Merchants for Consumer to contact

 End

 Notify Consumer Of Confirmation Of Order (Delivery Date, Final Cost, Savings, D/A_Id)

End

10004421.102301

FIGURE 11B

Bid System

10004421 102301

```
Get Bid_Request from SAA.com Bid_System Queue (Response_Time, Lowest_Bid)
Set Bid_Request Tier_Region_Number to Tier_Region_1
Set Tier_Region_Expired_Time for Tier_Region
Determine_Tier_Region_Class of Merchants Closest to Consumer From Tier_Region_Data Base
  (Tier_Region, Bid_Community)
REPEAT
  Begin
  Send Bid_Request For Quote/Bid To Tier_Region_Class of Merchants (Merchant_List)
  Wait For Merchant Response from Quick Response System™ OR Tier_Region_Expired_Time
  IF Tier_Region_Expired_Time THEN
    Increment Bid_Request Tier_Region_Number
    Set Tier_Region_Expired_Time for Next Tier_Region
    Determine_Tier_Region_Class of Merchants Closest to Consumer From Tier_Region_DataBase
      (Tier_Region_Number, Bid_Community)
  End
UNTIL (No_Confirmation_Received from D/A OR NOT Tier_Region_Expired_Time)
  AND (NOT (Last_Tier_Region + 1) DO
  IF Last_Tier_Region + 1 THEN
    Begin
    Build Confirmation Notice of No Order Bid for Consumer
    Set Bid_Request Tier_Region_Number to Tier_Region_1
    Determine_Tier_Region_Class of Merchants Closest to Consumer From Tier_Region_Data Base
      (Tier_Region, Bid_Community)
    Create Notify Message to Tier_Region 1 Merchants for Order Fulfillment
    Send Bid_Request For Quote/Bid To Tier_Region_Class of Merchants (Merchant_List)
  End
  IF Merchant Response with Confirmation_Received THEN
    Build Confirmation Notice of Order for Consumer
```

FIGURE 11C
Quick Response System™

Wait for Next Response from Merchant
Get Merchant_Id (D/A_Id)
Validate_Merchant_Identifier
Get Bid_Response_Form from Merchant Input (Bid_Number, Product_Code, Sell Price)
Validate Bid Number, Product Code, Sell Price
IF Lowest Price In Tier_Region_Class of Merchants Participating In Bid_Number THEN
 Begin
 Close Out Reverse Auction Bidding on Bid_Number Record
 Notify Bid_System of Merchant Confirmation Completed
 Notify Tier_Region_Class of Merchants
 End

Create Tier Region

Determine_Tier_Region_Class of Merchants Closest to Consumer (Tier_Region, Bid Community)

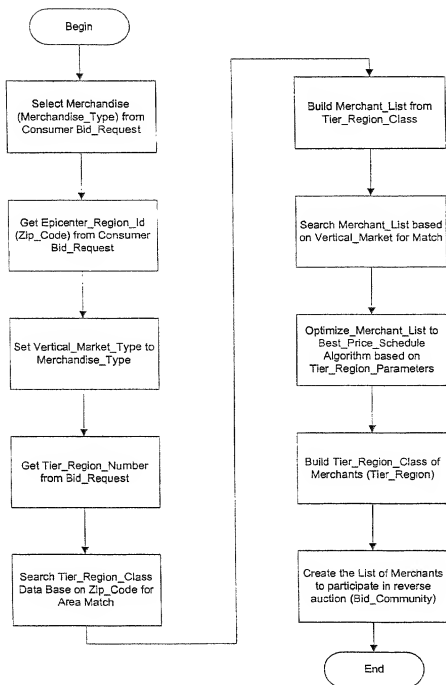
Begin

 Select Merchandise (Merchandise_Type) from Consumer Bid_Request
 Get Epicenter_Region_Id (Zip_Code) from Consumer Bid_Request
 Set Vertical_Market_Type to Merchandise_Type
 Get Tier_Region_Number from Bid_Request
 Search Tier_Region_Class Data Base on Zip_Code for Area Match
 Build Merchant_List from Tier_Region_Class
 Search Merchant_List based on Vertical_Market for Match
 Optimize_Merchant_List to Best_Price_Schedule Algorithm based on Tier_Region_Parameters
 Build Tier_Region_Class of Merchants (Tier_Region)
 Create the List of Merchants to participate in reverse auction (Bid_Community)

End

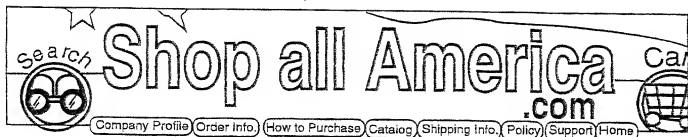
10004421-102301

FIGURE 12



Create Tier Region

1302



Apparel
Appliances
Automotive
Batteries
Baby Items 1306
Bath Towels
Beauty Supplies
Beds & Mattresses
Boats Register
Books & Literature
Boxes
Bicycles
Bridal & Tuxedo
Cameras
Candy
Camper/RV
Carpets & Rugs
Cell Phones
Collectibles
Computers
Electronics
Draperies
Fabrics
Farm & Feed
Food & Gourmet
Flowers
Furniture
Games
Greeting Cards
Hardware
Healthcare
Home & Garden
Housewares
Jewelry
Lighting Fixtures
Lumber Yard
Music & Videos
Motorcycles
Office Supplies
Paint Supplies
Party Supplies
Pet Supplies
Pharmacy
Sporting Goods
Toys

Product Search

 Go Shopping

Welcome to a nationwide team of businesses committed to bringing you the best product, service and support available over the Internet! [Click here](#) to learn more about us.

[Click here](#)
To Learn More
About Us!

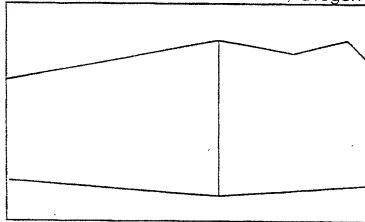
24 Hour Live Operator!

Click for live assistance.

May I help you?

ShopallAmerica
.com
STORE LOCATOR

Featured Store: Hazen Hardware, Oregon



Hazen Hardware is a 2nd generation family business owner by Bob and Terry Smith. With over 40 years of

Today's In-Stock
Inventory Value:
\$782,614,225

Featured Items:



Star War
Box Set
VHS,
\$59.95



Find Stor
Callaway
golf set.
\$1,299.9
irons, 3
woods,
putter an
bag.

Find Stor
Online
Investing
Beginner
guide -
\$14.95

Find Stor
Nintendo
Game bo
and
Accessor
\$98.95

Find Stor
Digital Vi
Cam. \$5

Find Stor
High
Resolutio
Color Pri
-Mac or

http://www.xxxxxxx.com/shop/

FIG. 13

... PRODUCT TYPE GARDENING

TOOLS

- ☐ Shovel, long
- ☐ Shovel, short
- ☐ Shovel, square
- ☐ Trowel, basic
- ☒ Trowel, deluxe
- ☐ Wheelbarrow

PLANTS

- ☐ Spathephyllum
- ☐ Venix
- ☐ Biscus
- ☐ Bicuspid, red
- ☐ Chrysanthemum
- ☐ Hydrangea

☒ BUY LOCAL ☐ BIDWHEEL ☒ SUBMIT

SKU
PIC
MSRP
DESC

Home

New
Type

Cart

Search

Customer
Service

FIG. 14

FIG. 15A

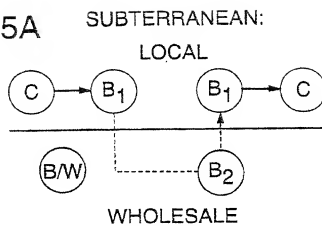
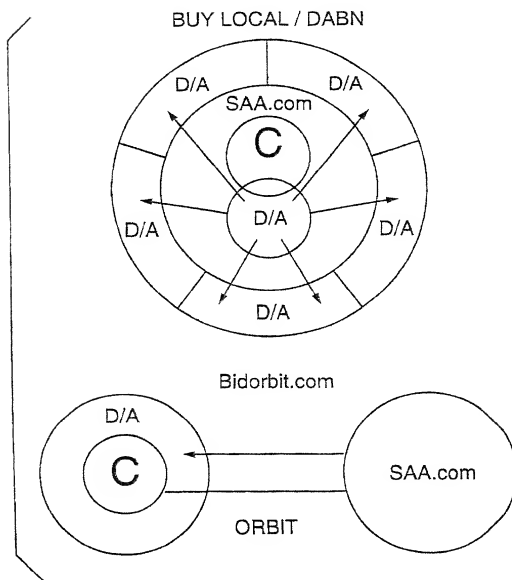
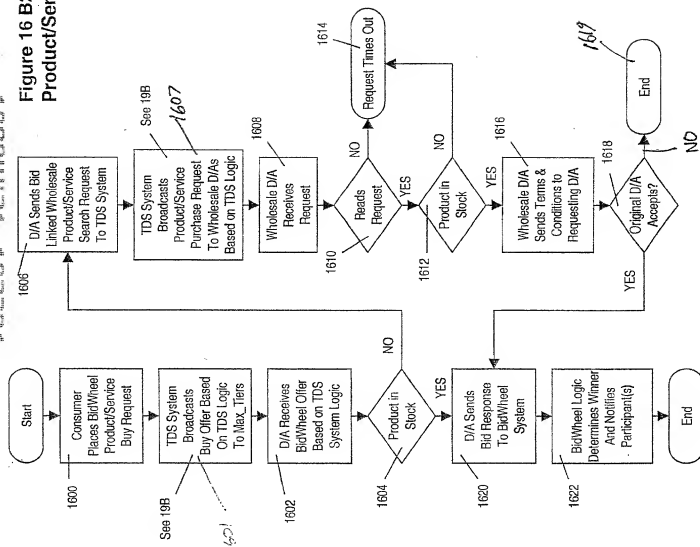


FIG. 15B



10004421.102301

Figure 16 B2B Subterranean Wholesale TDS
Product/Service Search



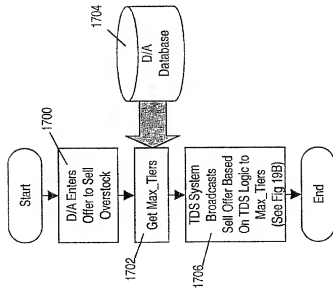
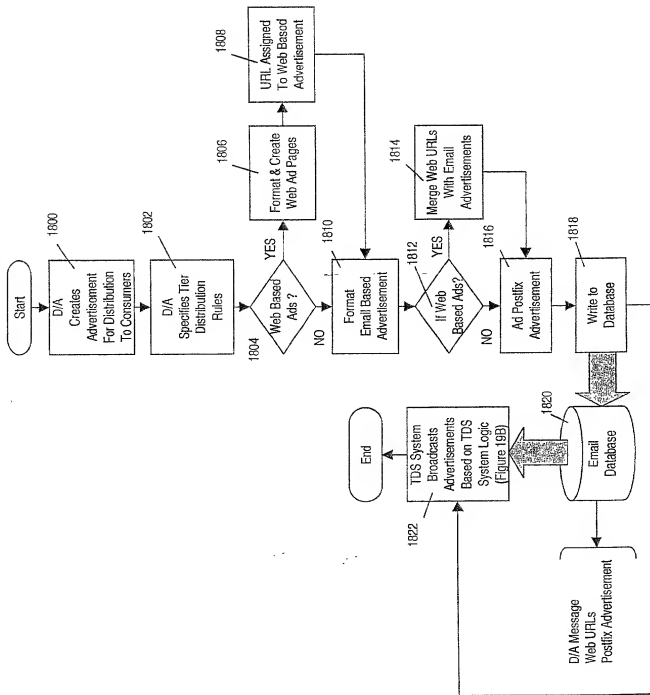


Fig 17 TDS Vertical Net Broadcast Network (B2B)

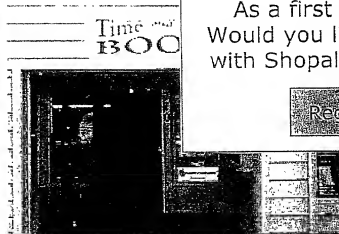
Fig 18 TDS Merchant Mail



[Store
Locator](#)[Company
Profile](#)[Retail
Member](#)[Contact
Us](#)[Tell a
Friend](#)

[Apparel](#)
[Appliances](#)
[Art & Collectibles](#)
[Automotive](#)
[Baby Items](#)
[Beauty Supplies](#)
[Beds & Mattresses](#)
[Books & Supplies](#)
[Books, New & Used](#)
[Building Materials](#)
[Cameras](#)
[Cards & Gifts](#)
[Carpets & Rugs](#)
[Draperies](#)
[Electronics](#)
[Fabrics](#)
[Farms & Feed](#)
[Flowers](#)
[Food & Gourmet](#)
[Furniture](#)
[Hardware](#)
[Health & Nutrition](#)
[Home & Housewares](#)
[Jewelry](#)
[Lawn & Garden](#)
[Motorcycles](#)
[Music & Video](#)
[Office Supplies](#)
[Party Supplies](#)
[Pet Supplies](#)
[Pharmacy](#)
[RVs & Campers](#)
[Sporting goods](#)
[Toys & Games](#)
[Wedding](#)

Time and Again Books



As a first time visitor
Would you like to register
with ShopallAmerica.com

[Register](#)[Weekly Specials](#)[Map It!](#)

Specializing in the buying and selling of quality antiques, collectibles, fine furniture and books, we are located off scenic Route 99W on the way to the Oregon Coast. Tourists and locals love to browse our wide selection of antique radios, clocks, Depression glass, Native American artifacts, and all types of antique American and European fine furniture. We also sell new books in addition to our rare and antique collection.

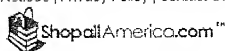
Forms of Payment Accepted:

Cash, Personal Check, Visa, Mastercard, Discover

Please stop in for details on our book exchange program!

Store Hours

Monday	closed
Tuesday	10-5
Wednesday	10-5
Thursday	10-5
Friday	10-5
Saturday	10-5
Sunday	closed



10E20T"12HH000T

ShopallAmerica Merchant Mailer Consumer Opt-In

Enter you address

Address: 19163 SW Murphy Ct

Zip Code: 97007

Indicate Areas of Interest by Vertical Market

Automotive



Food & Gourmet



Sporting Goods



Indicate merchants that you wish to receive mailings from:

Joe's Deli & Gourmet Foods



Safeway Grocery Stores



True Value Hardware



Fig. 18B



ShopallAmerica.com™

Local Businesses in Beaverton, OR Edit

Store
Locator

Company
Profile

Retail
Member

Contact
Us

Tell a
Friend

Apparel
Appliances
Art & Collectibles
Automotive
Baby Items
Beauty Supplies
Beds & Mattresses
Books & Supplies
Books, New & Used
Building Materials
Cameras
Cards & Gifts
Carpets & Rugs
Draperies
Electronics
Fabrics
Farm & Feed
Flowers
Food & Gourmet
Furniture
Hardware
Health & Nutrition
Home & Housewares
Jewelry
Lawn & Garden
Motocycles
Music & Video
Office Supplies
Party Supplies
Pet Supplies
Pharmacy
RVs & Campers
Sporting goods
Toys & Games
Wedding

Weekly Specials for Sept 4 – Sept 10, 2000

Time and Again Books

Goblet of Fire (Book 4) Harry Potter List \$24.95 Our Price \$12.95

Harry Potter and Goblet of Fire Our Price \$33.95

Cassette Unabridged by J.K. Rowling List \$39.95

The Bear and the Dragon Tom Clancy Our Price \$24.95

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ShopallAmerica.com™

Fig. 18C

10E20T"12440001

ShopallAmerica.com merchant mailer

Hello Jamie,

You indicated an interest in books and gourmet food when you signed up as a consumer member of ShopallAmerica.com. Following are the local specials from merchants in your community that you have indicated interest in.

Time and Again Books

Goblet of Fire (Book 4) Harry Potter List \$24.95 Our Price \$12.95

Harry Potter and Goblet of Fire Our Price \$33.95

Cassette Unabridged by J.K. Rowling List \$39.95

The Bear and the Dragon Tom Clancy Our Price \$24.95

<<< Please stop in for details of our book exchange program >>>

Joe's Deli

50 year old Balsamic Vinegar \$149.97

Corn Beef per pound \$4.97

Pastrami \$5.97

Cole Slaw \$2.99

<<< Bring this ad in for \$1.00/lb off any deli meat >>>

ShopallAmerica.com your home town shopper


Fig. 18D

10E201:12440001

Welcome Joe's Deli Please enter your weekly specials

Enter up to 4 specials. Each special can be described by an eighty Character definition with a price:

50 year old Balsamic Vinegar	\$149.97
Corn Beef per pound	\$4.97
Pastrami per pound	\$5.97
Cole Slaw per pint	\$2.99

Post to Web Site 


Merchant Mail to Consumers 

FIG. 18E



10E201 12HH0001

Send the weekly specials to: Select one

		# Sent
Home Market	<input type="checkbox"/>	500
Local consumers outside of your home market	<input type="checkbox"/>	2,500
State wide	<input type="checkbox"/>	10,000
National	<input type="checkbox"/>	100,000
North America (includes Alaska, Hawaii & Canada)	<input type="checkbox"/>	120,000

Enter date to send XX / XX / XXXX

As a silver member of the ShopallAmerica.com merchant program you may make one mailing a week. If you would like to make more than one mailing a week please call ShopallAmerica.com at...

Fig. 18 F



ShopallAmerica.com™

Local Businesses in Beaverton, OR [Edit](#)

[Store
Locator](#)

[Company
Profile](#)

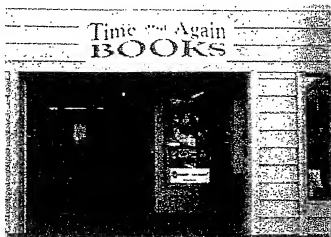
[Retail
Member](#)

[Contact
Us](#)

[Tell a
Friend](#)

[Apparel](#)
[Appliances](#)
[Art & Collectibles](#)
[Automotive](#)
[Baby Items](#)
[Beauty Supplies](#)
[Beds & Mattresses](#)
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[Books, New & Used](#)
[Building Materials](#)
[Cameras](#)
[Cards & Gifts](#)
[Carpets & Rugs](#)
[Draperies](#)
[Electronics](#)
[Fabrics](#)
[Farm & Feed](#)
[Flowers](#)
[Food & Gourmet](#)
[Furniture](#)
[Hardware](#)
[Health & Nutrition](#)
[Home & Housewares](#)
[Jewelry](#)
[Lawn & Garden](#)
[Motorcycles](#)
[Music & Video](#)
[Office Supplies](#)
[Party Supplies](#)
[Pet Supplies](#)
[Pharmacy](#)
[RVs & Campers](#)
[Sporting Goods](#)
[Toys & Games](#)
[Wedding](#)

Time and Again Books



710 E. First Street
Newberg, OR 97132
Phone: (503) 538-3443
Fax: (503) 538-3443

Owners:
Tom & Lissa Radomski

[Weekly Specials](#)

[Map It!](#)

Specializing in the best
antiques, collectible
located off scenic
Oregon Coast. Tour
wide selection of a
glass, Native Ameri
antique American a
sell new books in a
collection

Buy 5 books
Get the 6th one FREE

[Print Coupon](#)

Forms of Payment Accepted:
Cash, Personal Check, Visa, Mastercard, Discover

Saturday	10-5
Sunday	closed

Please stop in for details on our book exchange program!

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ShopallAmerica.com™

FIG. 18 G

10E20T*12H4000T

FIG. 18H


Buy 5 Books
Get the 6th one FREE

Time and Again Books

Expires 9/30/00

ShopallAmerica.com Merchant Coupon

Merchant Coupon Distribution Rules Entry Page


Offer to everyone that visits my site 


Offer only to those that have indicated interest 

in my vertical field.


Offer only to those that have indicated no interest 

in my vertical field

Offer only to consumers in my home tier 

Offer only to local consumers outside of my 

home tier but within my local area.

Offer only in my home state 

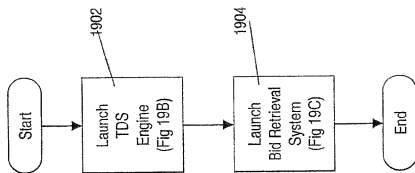
Offer to anyone 

Fig. 18I

Enter Rules

10E20T*12440001

Fig 19A Tier Engine



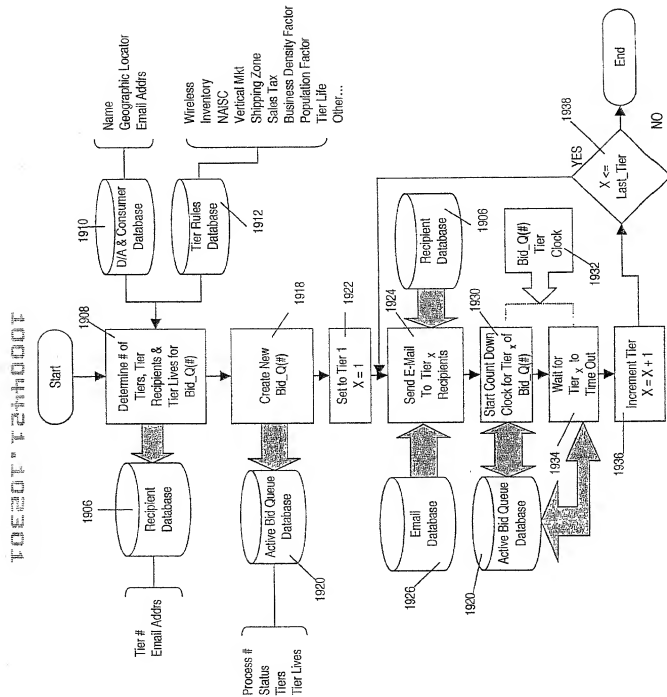


Fig 19B

Tier Engine – Tier Creation & Distribution

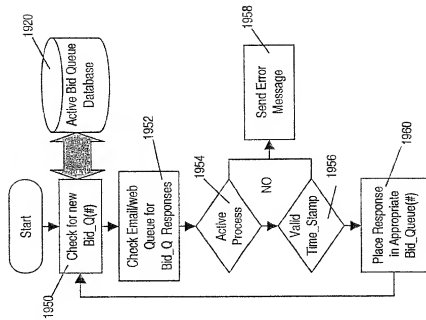


Fig 19C

Tier Engine – Bid_Retrieval

Example: Tier Area

$$T_{A\ A=1} = T_1$$

$$T_{A\ A=2} = T_1 + T_2$$

$$T_{A\ A=3} = T_1 + T_2 + T_3$$

$$T_{A\ A=4} = T_1 + T_2 + T_3 + T_4$$

$$T_{A\ A=5} = T_1$$

Example: Tier Life

$$T_1 = 5 \text{ units}$$

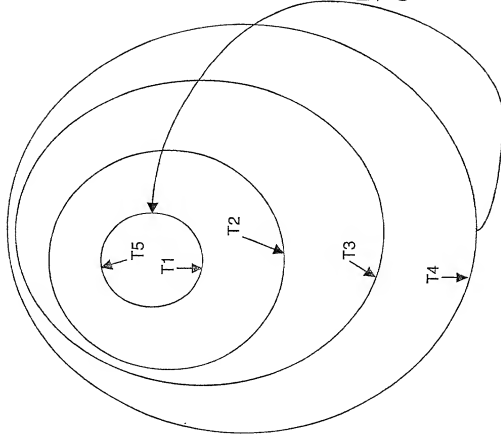
$$T_2 = 5 \text{ units}$$

$$T_3 = 5 \text{ units}$$

$$T_4 = 5 \text{ units}$$

$$T_5 = 0 \text{ units}$$

$$\text{Total Tier Life} = 20 \text{ units}$$



Last tier collapses
To tier 1 at the end
Of its tier life.

Note:

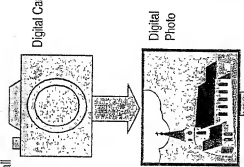
$$T_A = \text{Tier}_{\text{ACTIVE}}$$

FIG. 20

1002201 "12440001
2102
2103
2106

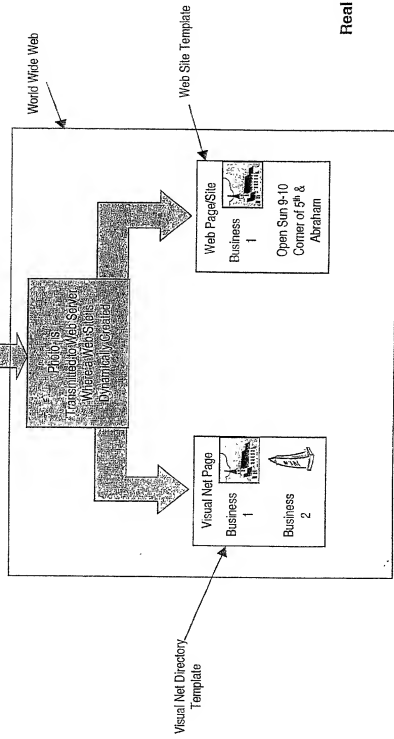
Problem: Current web development requires that the prospective small business owner either pay for a custom designed Website or create their own site using either PC or web based tools. These methods are costly and confusing to the average small business owner. Using an automated system that requires only a photo and basic information about the business this system will dynamically create an entry in the Visual Net Directory with a hyperlink to the merchant website in real-time allowing an on-site salesperson to create the website for that business at one meeting, in real-time, at a very low price.

- Step 1: Salesperson takes photo of business
- Step 2: Salesperson gets GPS location on laptop
- Step 3: Salesperson transfers photo from digital camera to laptop
- Step 4: Salesperson transfers photo & business data to the TDS system via wireless apparatus, land based telco line, etc.



Visual Net Page Directory and merchant web site are created dynamically and in real time by a server process using predefined templates to create an uniform look and feel for the website. The business address is converted into a centroid such as a geocode, longitude & latitude, etc for use by the TDS in determining economic tiering.

- Step 5: The salesperson shows the completed website and the Merchants entry into the Visual Net Directory.



Real Time Presence Model

FIG. 21

Figure 22A



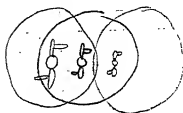
The consumer identifies the epicenter of the tiers – all businesses within T_H , the home tier, will show up in the wireless directory. Businesses not in the home tier can choose to be included in the wireless directory by purchasing a multi-tier package.

Tiering could be used as a sale stool – the merchant would automatically get a listing if the consumer was located in the home tier of the retailer. The retailer could pay to extend their home tier.

The tiering could be used to increase the attraction of the offer, e.g., in the home tier the offer might be for 5% off, but in an extended tier (T_{H+X}) the offer could be 10% off.

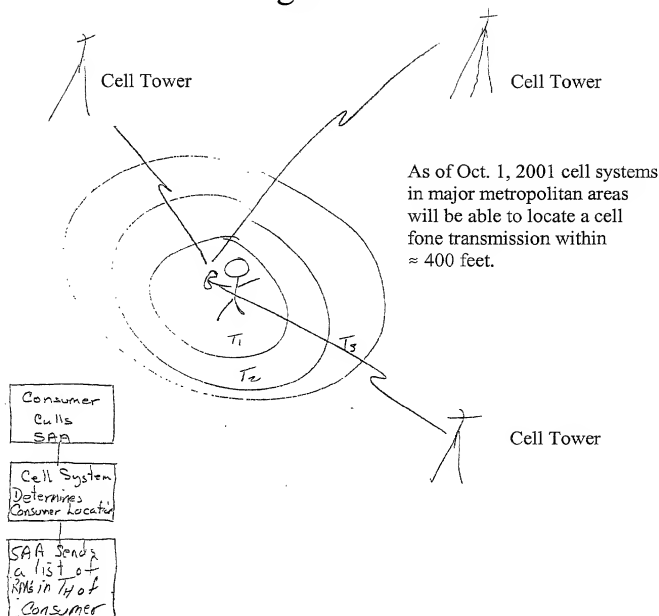
Figure 22B

MOBILE TIERING



Tier Moves With User

Figure 22C



10004421-102301

Figure 22D

